

SEQUENCES

SEQ ID #1

agfA DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCGTTCCACAATGGGGCGGCGGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCGG
ACTCAACGTTGAGCATTATCAGTACGGTTCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
GCCCCGTAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATGTAGGCCA
GGGTGCGGATAATAGTACTATTGAACTGACTCAGAAATGGTTTCAGAAATAATGCCACCATCG
ACCACTGGAACGCTAAAACTCCGATATTACTGTGCGCCAATACGGCGGTAATAACGCCCGCG
CTGGTTAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
CGCCACGGCTAACCAAGTATTAA

SEQ ID #2

agfB DNA Sequence

ATGAAAAACAAATTGTTATTTATGATGTTGACAATACTGGGTGCGCCTGGGATTGCAACCGC
GACAAATTATGATCTGGCTCGTTTCAGAATATAATTTTTCGGGTAAATGAATTAAGCAAGTCTT
CATTTAATCAGGCGGCCATTATTGGTCAAGTCGGCACGGATAATAGTGCCAGAGTACGCCAG
GAAGGATCAAACTATTGTCCGTTATTTTACAAGAAGGAGGAAATAATCGGGCGAAAGTCGA
CCAGGCAGGGAATTATAACTTTGCGTATATTGAGCAAACGGGCAATGCCAACGATGCCAGTA
TATCGCAAAGCGCTTACGGTAATAGTGCAGCTATTATCCAGAAAGGTTCTGGAAATAAGGCC
AATATTACCCAGTACGGTACGCAGAAAACAGCAGTTGTAGTGCAGAAACAGTCGCATATGGC
TATTCGCGTCACCCAACGCTAA

SEQ ID #3

csgA DNA Sequence

ATGAAACTTTTAAAAGTAGAAGCAATTGCAGCAATCGTATTCTCCGGTAGCGCTCTGGCAGG
TGTTGTTCCCTCAGTACGGCGGCGGCGGTAACCACGGTGGTGGCGGTAATAATAGCGGCCCAA
ATTCTGAGCTGAACATTTACCAGTACGGTGGCGGTAACCTCTGCACTTGCTCTGCAAAGTATG
GCCCCGTAATCTGACTTGACTATTACCCAGCATGGCGGCGGTAATGGTGCAGATGTTGGTCA
GGGCTCAGATGACAGCTCAATCGATCTGACCCAACGTGGCTTCGGTAACAGCGCTACTCTTG
ATCAGTGGAACGGCAAAAATTCTGAAATGACGGTTAAACAGTTCGGTGGTGGCAACGGTGCT
GCAGTTGACCAGACTGCATCTAACTCCTCCGTCAACGTGACTCAGGTTGGCTTTGGTAACAA
CGCGACCGCTCATCAGTACTAA

SEQ ID #4

csgB DNA Sequence

ATGAAAAACAAATTGTTATTTATGATGTTAACAATACTGGGTGCGCCTGGGATTGCAGCCGC
AGCAGGTTATGATTTAGCTAATTCAGAATATAACTTCGCGGTAAATGAATTGAGTAAGTCTT
CATTTAATCAGGCAGCCATAATTGGTCAAGCTGGGACTAATAATAGTGCTCAGTTACGGCAG

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GGAGGCTCAAACTTTTGGCGGTTGTTGCGCAAGAAGGTAGTAGCAACCGGGCAAAGATTGA
CCAGACAGGAGATTATAACCTTG CATATATTGATCAGGCGGGCAGTGCCAACGATGCCAGTA
TTTCGCAAGGTGCTTATGGTAATACTGCGATGATTATCCAGAAAGGTTCTGGTAATAAAGCA
AATATTACACAGTATGGTACTCAAAAAACGGCAATTGTAGTGCAGAGACAGTCGCAAATGGC
TATTCGCGTGACACAACGTAA

SEQ ID #5

AgfA protein Sequence

MKLLKVAFAAIVVSGSALAGVVPQWGGGNHNGGGNSSGPDSTLSIYQYGSANAALALQSD
ARKSETTITQSGYNGADVQGDADNSTIELTQNGFRNNATIDQWNAKNSDITVGQYGGNNAA
LVNQ TASDSSVMVRQVGF GNNATANQY

SEQ ID #6

AgfB protein Sequence

MKNKLLFMMLTILGAPGIATATNYDLARSEYNFAVNELSKSSFNQAAIIGQVGTDNSARVRQ
EGSKLLSVISQEGGNNRAKVDQAGNYNFAYIEQTGNANDASISQSAYGNSAAIIQKSGGNKA
NITQYGTQKTAVVVQKQSHMAIRVTQR

SEQ ID #7

CsgA protein sequence

MKLLKVAIAAIVFSGSALAGVVPQYGGGNHGGGGNNSGPNSELNIYQYGGGNSALALQTD
ARNSDLTITQHGGGNGADVQGSDDSSIDL TQRGFGNSATLDQWNGKNSEMTVKQFGGGNGA
AVDQTASNSSVNV TQVGF GNNATAHQY

SEQ ID #8

CsgB protein sequence

MKNKLLFMMLTILGAPGIAAAAGYDLANSEYNFAVNELSKSSFNQAAIIGQAGTNNSAQLRQ
GGSKLLAVVAQEGSSNRAKIDQTGDYNLAYIDQAGSANDASISQGAYGNTAMIIQKSGGNKA
NITQYGTQKTAIVVQRQSQMAIRVTQR

SEQ ID #9

PT3 epitope DNA sequence

TATGATCAGCTGGTTACCCGTGTTGTTACCCATGAAATGGCACATGCA

SEQ ID #10

PT3 epitope protein sequence

YDQLVTRVVTHEMAHA

SEQ ID #11

AgfA::PT3#1 DNA sequence

005040-040500

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCG
ACTCAACGTTGAGCATTTATCAGTACGGTTCCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
GCCCCGTAAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATGTAGGCCA
GGGTGCGGATAATAGTACTATTGAACTGACTCAGAATGGTTTCAGAAATAATGCCACCATCG
ACCAGTGGAACGCTAAAACTCCGATATTACTGTTCGGCCAATACGGCGGTAATAACGCCGCG
CTGGTTAATTATGATCAGCTGGTTACCCGTGTTGTTACCCATGAAATGGCACATGCAACAA
CGCCACGGCTAACCAGTATTAA

SEQ ID #12

AgfA::PT3#1 protein sequence

MKLLKVAFAAIVVSGSALAGVVPQWGGGNHNGGNSSGPDSTLSIYQYGSANAALALQSD
ARKSETTITQSGYNGADVQGADNSTIELTQNGFRNNATIDQWNAKNSDITVGQYGGNNAA
LVNYDQLVTRVVTHEMAHANNATANQY

SEQ ID #13

AgfA::PT3#2 DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCG
ACTCAACGTTGAGCATTTATCAGTACGGTTCCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
GCCCCGTAAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATGTAGGCCA
GGGTGCGGATAATAGTACTATTGAACTGACTCAGAATGGTTTCAGAAATAATGCCACCATCG
ACCAGTGGAACGCTAAAACTCCGATATTACTGTTCGGCCAATATGATCAGCTGGTTACCCGT
GTTGTTACCCATGAAATGGCACATGCAAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
CGCCACGGCTAACCAGTATTAA

SEQ ID #14

AgfA::PT3#2 protein sequence

MKLLKVAFAAIVVSGSALAGVVPQWGGGNHNGGNSSGPDSTLSIYQYGSANAALALQSD
ARKSETTITQSGYNGADVQGADNSTIELTQNGFRNNATIDQWNAKNSDITVGQYDQLVTR
VVTHEMAHASVMVRQVGFNNATANQY

SEQ ID #15

AgfA::PT3#3 DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCTATGATCAGCTGGTTACCCGTGTTGTTACCCATGAAATGGCACATGCATCCGGCCCCG
ACTCAACGTTGAGCATTTATCAGTACGGTTCCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
GCCCCGTAAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATGTAGGCCA
GGGTGCGGATAATAGTACTATTGAACTGACTCAGAATGGTTTCAGAAATAATGCCACCATCG
ACCAGTGGAACGCTAAAACTCCGATATTACTGTTCGGCCAATACGGCGGTAATAACGCCGCG

CTGGTTAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
CGCCACGGCTAACCAGTATTAA

SEQ ID #16

AgfA::PT3#3 protein sequence

MKLLKVAAFAAIVVSGSALAGVYDQLVTRVVTHEMAHASGPDSTLSIYQYGSANAALALQSD
ARKSETTITQSGYNGADVGGADNSTIELTQNGFRNNATIDQWNAKNSDITVGQYGGNNAA
LVNQ TASDSSVMVRQVGF GNNATANQY

SEQ ID #17

AgfA::PT3#4 DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCGG
ACTATGATCAGCTGGTTACCCGTGTTGTTACCCATGAAATGGCACATGCACTGCAAAGCGAT
GCCCCGTAAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATGTAGGCCA
GGGTGCGGATAATAGTACTATTGAACTGACTCAGAATGGTTTCAGAAATAATGCCACCATCG
ACCAGTGGAACGCTAAAACTCCGATATTACTGTGCGCCAATACGGCGGTAATAACGCCGCG
CTGGTTAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
CGCCACGGCTAACCAGTATTAA

SEQ ID #18

AgfA::PT3#4 protein sequence

MKLLKVAAFAAIVVSGSALAGVVPQWGGGNHNGGGNSSGPDYDQLVTRVVTHEMAHALQSD
ARKSETTITQSGYNGADVGGADNSTIELTQNGFRNNATIDQWNAKNSDITVGQYGGNNAA
LVNQ TASDSSVMVRQVGF GNNATANQY

SEQ ID #19

AgfA::PT3#5 DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCGG
ACTCAACGTTGAGCATTATCAGTACGGTTCCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
GCCCCGTAAATATGATCAGCTGGTTACCCGTGTTGTTACCCATGAAATGGCACATGCAGGCCA
GGGTGCGGATAATAGTACTATTGAACTGACTCAGAATGGTTTCAGAAATAATGCCACCATCG
ACCAGTGGAACGCTAAAACTCCGATATTACTGTGCGCCAATACGGCGGTAATAACGCCGCG
CTGGTTAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
CGCCACGGCTAACCAGTATTAA

SEQ ID #20

AgfA::PT3#5 protein sequence

005040-20121560

MKLLKVAAFAAIIVSGSALAGVVPQWGGGGNHNGGGNSSGPDSTLSIYQYGSANAALALQSD
 ARKYDQLVTRVVTHEMAHAGQGADNSTIELTQNGFRNNATIDQWNAKNSDITVGQYGGNNAA
 LVNQ TASDSSVMVRQVGF GNNATANQY

SEQ ID #21

AgfA::PT3#6 DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
 CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCG
 ACTCAACGTTGAGCATTTATCAGTACGGTTCCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
 GCCCGTAAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATGTAGGCCA
 GGGTGCGGATAATTATGATCAGCTGGTTACCCGTGTTGTTACCCATGAAATGGCACATGCAG
 ACCAGTGGAACGCTAAAACTCCGATATTACTGTCCGCCAATACGGCGGTAATAACGCCGCG
 CTGGTTAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
 CGCCACGGCTAACCAGTATTAA

SEQ ID #22

AgfA::PT3#6 protein sequence

MKLLKVAAFAAIIVSGSALAGVVPQWGGGGNHNGGGNSSGPDSTLSIYQYGSANAALALQSD
 ARKSETTITQSGYNGADVQGADNYDQLVTRVVTHEMAHADQWNAKNSDITVGQYGGNNAA
 LVNQ TASDSSVMVRQVGF GNNATANQY

SEQ ID #23

AgfA::PT3#7 DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
 CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCG
 ACTCAACGTTGAGCATTTATCAGTACGGTTCCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
 GCCCGTAAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATGTAGGCCA
 GGGTGCGGATAATAGTACTATTGAACTGACTCAGAATGGTTTCAGAAATAATGCCACCATCG
 ACCAGTGGAACGCTAAAACTATGATCAGCTGGTTACCCGTGTTGTTACCCATGAAATGGCA
 CATGCAAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
 CGCCACGGCTAACCAGTATTAA

SEQ ID #24

AgfA::PT3#7 protein sequence

MKLLKVAAFAAIIVSGSALAGVVPQWGGGGNHNGGGNSSGPDSTLSIYQYGSANAALALQSD
 ARKSETTITQSGYNGADVQGADNSTIELTQNGFRNNATIDQWNAKNYDQLVTRVVTHEMA
 HANQTASDSSVMVRQVGF GNNATANQY

SEQ ID #25

AgfA::PT3#8 DNA sequence

005040 " 207E-560

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCGG
ACTCAACGTTGAGCATTATCAGTACGGTTCCGCTAACGCTGCGCTTTATGATCAGCTGGTT
ACCCGTGTTGTTACCCATGAAATGGCACATGCAGGTTATGGTAACGGCGCCGATGTAGGCCA
GGGTGCGGATAATAGTACTATTGAACTGACTCAGAATGGTTTCAGAAATAATGCCACCATCG
ACCAGTGGAACGCTAAAACTCCGATATTACTGTTCGGCCAATACGGCGGTAATAACGCCCGCG
CTGGTTAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
CGCCACGGCTAACCAGTATTAA

SEQ ID #26

AgfA::PT3#8 protein sequence

MKLLKVAAFAAIVVSGSALAGVVPQWGGGNHNGGNSSGPDSTLSIYQYGSANAALYDQLV
TRVVTHEMAHAGYGNADVQGADNSTIELTQNGFRNNATIDQWNAKNSDITVGQYGGNNAA
LVNQ TASDSSVMVRQVGFNNATANQY

SEQ ID #27

AgfA::PT3#9 DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCGG
ACTCAACGTTGAGCATTATCAGTACGGTTCCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
GCCCGTAAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATTATGATCA
GCTGGTTACCCGTGTTGTTACCCATGAAATGGCACATGCATTCAGAAATAATGCCACCATCG
ACCAGTGGAACGCTAAAACTCCGATATTACTGTTCGGCCAATACGGCGGTAATAACGCCCGCG
CTGGTTAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
CGCCACGGCTAACCAGTATTAA

SEQ ID #28

AgfA::PT3#9 protein sequence

MKLLKVAAFAAIVVSGSALAGVVPQWGGGNHNGGNSSGPDSTLSIYQYGSANAALALQSD
ARKSETTITQSGYNGADYDQLVTRVVTHEMAHAFRNNATIDQWNAKNSDITVGQYGGNNAA
LVNQ TASDSSVMVRQVGFNNATANQY

SEQ ID #29

AgfA::PT3#10 DNA sequence

ATGAAACTTTTAAAAGTGGCAGCATTTCGCAGCAATCGTAGTTTCTGGCAGTGCTCTGGCTGG
CGTCGTTCCACAATGGGGCGGCGGCGGTAATCATAACGGCGGCGGCAATAGTTCCGGCCCCGG
ACTCAACGTTGAGCATTATCAGTACGGTTCCGCTAACGCTGCGCTTGCTCTGCAAAGCGAT
GCCCGTAAATCTGAAACGACCATTACCCAGAGCGGTTATGGTAACGGCGCCGATGTAGGCCA
GGGTGCGGATAATAGTACTATTGAACTGACTCAGAATGGTTTCAGAAATAATGCCACCTATG
ATCAGCTGGTTACCCGTGTTGTTACCCATGAAATGGCACATGCAGGCGGTAATAACGCCCGCG

CTGGTTAATCAGACCGCATCTGATTCCAGCGTAATGGTGCGTCAGGTTGGTTTTGGCAACAA
CGCCACGGCTAACCAGTATTAA

SEQ ID #30

AgfA::PT3#10 protein sequence

MKLLKVAAFAAIVVSGSALAGVVPQWGGGGNHNGGNSSGPDSTLSIYQYGSANAALALQSD
ARKSETTITQSGYNGADVGQGADNSTIELTQNGFRNNATYDOLVTRVVTHEMAHAGGNNA
LVNQTASDSSVMVRQVGFNNATANQY

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